



GIS-504, GIS-506 Info 3.x Navigation Test Procedures

1 Introduction

Note: Nothing in this standard supercedes applicable laws and regulations.

Note: In the event of conflict between the English and domestic language, the English language shall take precedence.

1.1 Purpose. To identify the subsystem level test procedures to be performed to verify the infotainment subsystem requirements for Infotainment (Info) Info 3.x Global Infotainment Specification (GIS) GIS-504 Navigation User Interface (UI) and GIS-506 OnStar® Turn by Turn (TBT) UI. The test procedures that verify GIS-504 and GIS-506 requirements are contained in CG3990, CG3991, CG3992, CG3993, CG3994, CG4053, CG4901 and CG5448. The supplier shall work with the GM Design Responsible Engineer to comprehend this requirement.

1.2 Applicability. Currently, all Info3.x programs starting with 2017 Model Year.

1.3 Remarks. More model years and programs will be added.

2 References

Note: Only the latest approved standards are applicable unless otherwise specified.

2.1 External Standards/Specifications.

None

2.2 GM Standards/Specifications.

None

2.3 Additional References.

- CG3990 GIS-504 Info 3.x Navigation - Center Stack Module (CSM) view
- CG3991 GIS-504 Info 3.x Navigation - Cluster view
- CG3992 GIS-504 Info 3.x Navigation - Heads up Display (HUD) view
- CG3993 GIS-504 Info 3.x Navigation - HUD view
- CG3994 GIS-504 Info 3.x Settings – Navigation
- CG4053 GIS-506 Info 3.x OnStar® TBT (ID)
- CG4901 Info 3.x GIS-506 TBT Info 3.x Low (ID)
- CG5448 GIS-506 Info 3.x OnStar® TBT CSM Mid/High (PATAC) (ID)
- GIS-504 Navigation UI
- GIS-506 OnStar® TBT UI

(ID) = This document is limited to internal distribution within General Motors and shall not be distributed outside this company. Contact the GM Lead Engineer for further instructions.

3 Resources

3.1 Facilities. An electrical test laboratory with a subsystem or system test bench.

3.1.1 Calibration. The test facilities and equipment shall be in good working order and shall have a valid calibration label.

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3.1.2 Alternatives. Alternative test facilities and equipment may also be used. However, all measuring variables as specified in this standard shall be determined correctly with respect to their physical definition.

3.2 Equipment. A serial data monitoring tool and test computer with the supporting software.

3.3 Test Vehicle/Test Piece. Test bench with latest (production intent) for Info 3.x Center Stack Module (CSM) and all interfacing modules and software.

3.4 Test Time. The individual CG documents are comprehensive, i.e., contain tests for all Info 3.x features/functions. Test time is dependent on program content.

3.5 Test Required Information. Not applicable.

3.6 Personnel/Skills. One (1) Infotainment Subsystem Engineer is required to perform the test. Knowledge of General Motors Local Area Network (GMLAN) is required. The Test Engineer must be able to transmit functional and diagnostic messages with the test tool and record and analyze GMLAN serial data communications. Additionally, the knowledge of Ethernet data monitoring is required.

4 Procedure

4.1 Preparation. Verify that the correct hardware and software levels are being used with the correct calibration.

4.2 Conditions. As found in the individual CG documents.

4.2.1 Environmental Conditions. This test procedure is a functional test that is not intended to test the effect of any environmental conditions. It is intended to be performed on an electrical test bench in an electrical test laboratory environment with no additional environmental requirements.

4.2.2 Test Conditions. Deviations from the requirements of this standard shall have been agreed upon. Such requirements shall be specified on component drawings, test certificates, reports, etc.

4.3 Instructions. Follow the test steps found in the individual CGs (CG3990, CG3991, CG3992, CG3993, CG3994, CG4053, CG4901 and CG5448) available from Global Document Management (GDM). The supplier shall work with the GM Design Responsible Engineer to comprehend this requirement.

5 Data

5.1 Calculations. Not applicable.

5.2 Interpretation of Results. The Test Engineer is to perform the test steps, read the action for each step, then compare the actual results to the expected results, then determine if the subsystem does/does not meet the requirements. Some test steps may not be applicable to the configuration and/or calibration being tested.

5.3 Test Documentation. For each requirement tested, the Test Engineer is to document "Pass", Not applicable ("N/A") or "Failed" in the results column of the test procedures (CG3990, CG3991, CG3992, CG3993, CG3994, CG4053, CG4901 and CG5448). A copy of all test procedures with results may be included with the evaluation report as supporting documentation. The supplier shall work with the GM Design Responsible Engineer to comprehend this requirement.

All failures or unusual observations are to be documented in the Electrical and Software Issue Management System (ESIMS), or in the Problem Resolution Tracking System (PRTS). Complete bus log files are to be collected and included with the ESIMS, PRTS. Contact the GM Release Engineer for details regarding which system to document failures or unusual observations.

6 Safety

This Engineering Standard may involve safety requirements for hazardous materials, the method of operations and equipment. This standard does not propose to address all the safety issues associated with its use. It is the responsibility of the user of this standard to ensure compliance with all appropriate safety and health practices. This would include any specific training that may be required. The safety and health standards include site specific rules and procedures, company rules and procedures, and Government Standards. Contact shall be made with the appropriate site Safety and Health personnel for further direction and guidance in these matters.

7 Notes

7.1 Glossary. Not applicable.

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